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SANITARY ENGINEERING TECHNOLOGY TRAINING, REPORT ON A PROGRAM DEVELOPED AT THE FAYETTEVILLE TECHNICAL INSTITUTE IN NORTH CAROLINA TO MEET A NATIONAL NEED.

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THE FAYETTEVILLE TECHNICAL INSTITUTE IN NORTH CAROLINA ESTABLISHED ITS PROGRAM IN SANITARY ENGINEERING TECHNOLOGY IN 1964, WITH ITS FIRST GRADUATING CLASS PLANNED FOR SPRING 1966. IN COOPERATION WITH THE CURRICULUM LABORATORY AND THE STATE DEPARTMENT OF COMMUNITY COLLEGES, AN ADVISORY COMMITTEE WAS FORMED, MADE UP OF SPECIALISTS IN MANY AREAS OF SANITATION AND WATER POLLUTION. THE COMMITTEE HELPED TO DETERMINE (1) THE NEED FOR SUCH GRADUATES, (2) THE BEST COURSES FOR THE CURRICULUM, AND (3) THE NECESSARY FACILITIES. THE STUDENT LEARNS STANDARD LABORATORY AND TESTING PROCEDURES FOR WASTE, FOOD, AND WATER HANDLING IN MANY AREAS OF SANITARY ENGINEERING AND PUBLIC HEALTH. HE ALSO RECEIVES RELATED COURSES IN MATHEMATICS, SCIENCE, DRAFTING, AND SURVEYING AND SPECIALIZED COURSES IN WATER AND WASTE TREATMENT, SANITATION CONTROL SYSTEMS, AND PLANT MAINTENANCE. GRADUATES ARE AWARDED AN ASSOCIATE DEGREE OF APPLIED SCIENCE IN SANITARY ENGINEERING TECHNOLOGY. THE EMPLOYMENT OPPORTUNITIES INCLUDE PUBLIC HEALTH OR SANITATION ENGINEERING AIDES, TREATMENT PLANT AND WATER PLANT OPERATORS, STEAM SANITATION TECHNICIAN, INDUSTRIAL WASTE TECHNICIAN, TECHNICAL EQUIPMENT AND CHEMICAL SALES OR SERVICE PERSONNEL, AND ENGINEERING TECHNICIANS IN GOVERNMENT AGENCIES. THIS ARTICLE IS PUBLISHED IN "AMERICAN VOCATIONAL JOURNAL," VOLUME 39, NUMBER 6, SEPTEMBER 1964.

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SANITARY ENGINEERING TECHNOLOGY TRAINING

Report on program developed
at the Fayetteville Technical
Institute in North Carolina
to meet a national need

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

HOWARD E. BOUDREAU,
President, and
CHARLES A. PURCELL,
Head, Engineering Department

THE GREATEST NEED of a modern city and community is an adequate, potable water supply. The next most important need is the proper disposal of the used water and solid waste. A modern city or community can exist without many of its municipal services, but healthy existence without good water and without adequate ways of removal of human excreta and industrial waste would be impossible.

It is an unfortunate fact that portions of many cities and communities in this country are still not provided with adequate sewage facilities. Our

ever-increasing population and industrial expansion carries with it the demand of many services. One of the most vital of these services is the protection and safeguarding of our water supply. The production and protection of our water supply presents an economic investment in which the State of North Carolina alone is spending millions of dollars each year for the construction and reconstruction of water and waste treatment facilities.

Modern industries use tremendous amounts of water daily in industrial processes, and are spending thou-

sands of dollars each year in research on treatment of liquid waste before it is returned to the streams and rivers. These activities require increasing numbers of highly skilled technical personnel to perform the many specialized tasks involved.

During the past few years, we have heard much discussion regarding the pollution of our streams by industrial wastes and household detergents. With the ever-increasing amount of vacations and leisure time being created for our working people, the outdoor living activities have mushroomed tremendously. A greater

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appreciation and wider use of this nation's assets in its mountains, forests, streams and lakes has brought about a tremendous need for men who are trained in the area of sanitation and conservation.

With this in mind, the Fayetteville Technical Institute decided to do some research into the feasibility of training people in this area of work. In cooperation with the Curriculum Laboratory under the auspices of the State of North Carolina, Department of Community Colleges, a statewide advisory committee was formed. The committee was made up of specialists in many areas of sanitation and water pollution throughout the state.

The main functions of the State Advisory Committee were: (a) to determine the need for this type of employee in the field of Sanitary Engineering; (b) to help determine what courses should be placed in the curriculum, and (c) to determine the facilities which should be included in the laboratory.

Curriculum Approved

At the first meeting of the State Advisory Committee, a rough draft was presented to them. During the day-long meeting, much discussion was carried on by all members. Some additions were added to the curriculum and some material was deleted. A second meeting of the State Advisory Committee was called a month later to recommend final approval of the Sanitary Engineering Technology curriculum.

The entire curriculum was drawn up in such a manner that we could work it around our core program and adapt it to our local situation. The curriculum was approved by the State Advisory Committee, and was then sent to the North Carolina Department of Community Colleges for their approval. On June 1, 1964, the first Sanitary Engineering Technology program was born. This is the only type of program of this nature in North Carolina. The new Sanitary Engineering Technology program will be put into operation in the fall of 1964.*

The idea of incorporating a program in Sanitary Engineering Technology at Fayetteville Technical Institute seemed to fit ideally into our

total picture at this time. We will be expanding our present facilities late this summer, and in our new expansion, we have made provisions for a laboratory especially designed to do the work that industry and governmental agencies are demanding of this new technician.

To gather specific information regarding the laboratory setup and equipment needed in this type of laboratory, a trip was made to the Robert A. Taft Sanitary Engineering Center of the U. S. Public Health Service in Cincinnati, Ohio. The people at this center were very cooperative in assisting us with our problems. They expressed a keen interest in this type of program, and expressed a great need for this type of person.

The graduates of this two-year curriculum will be awarded an associate degree of applied science in the field of Sanitary Engineering Technology. A graduate of this curriculum will have a knowledge of laboratory procedures and skill in performing all standard types of tests on liquid and solid forms of waste, milk and food, and water to determine bacteriological characteristics, acidity, etc.

The curriculum is designed to train technicians to work in the area of sanitary engineering and public health. The student will receive related courses in mathematics, science, drafting, and surveying in addition to specialized technical courses such as water and waste treatment, sanitation control system, and plant and equipment maintenance.

Job Outlook Is Good

How important is this new program going to be to the graduates? One of the agencies of the federal government has expressed a desire for all of our graduates. This is indicative of the importance of this program due to the fact that we will not be graduating a class in this curriculum until the spring of 1966.

What employment opportunities await the technician in the field of sanitary engineering? The graduate of the curriculum will be qualified for entry into a variety of positions such as public health engineering aide, sanitation engineering aide, treatment plant operators, stream sanitation technician, industrial waste technician, technical sales and services of equipment and chemistry, water plant



Training facilities at Fayetteville

operators, and engineering technician positions with federal, state and local governments and municipalities.

Entrance requirements in this course in Sanitary Engineering Technology are: a high school graduate or equivalent; two years of math including two of the following: algebra I, algebra II, geometry, trigonometry, and preferably a year of chemistry; and a qualifying score on the G.A.T.B. test given by the North Carolina Employment Security Commission.

In addition to the G.A.T.B. test, all students making applications for admission into our school are counseled by our guidance department. Every effort is made to help the students select the curriculum best suited for him or her so that they may profit to the fullest extent by the course of study which they have chosen.

With the inauguration of this new program in Sanitary Engineering Technology, we feel that we will be preparing people for an occupation where an acute shortage of trained manpower has developed. The health of our people and our country is a matter in which we cannot afford to have a shortage of skilled manpower.

*Copy of a Suggested Curriculum by Quarters for a Sanitary Engineering Technology program may be obtained by writing to the American Vocational Journal.

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As this issue was being put to be
move of AVA from the old build-
its new home was accomplished
only possible to picture the ext-
of your Association's own build-
in this issue. However, a photo
showing the new offices and AV
members at work will be publi-
in an early issue—probably Nov

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